[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2012-0490; Directorate Identifier 2012-NM-066-AD]

RIN 2120-AA64

Airworthiness Directives; The Boeing Company Airplanes

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for all The Boeing Company Model 707 airplanes, and Model 720 and 720B series airplanes. This proposed AD was prompted by reports of cracking of the midspar fittings, and of the engine and nacelle strut separating from the airplane. This proposed AD would require performing a detailed inspection of the midspar fittings of the nacelle strut to confirm that the correct part number is installed, and installing the correct part number if necessary; performing repetitive high frequency eddy current inspections (HFEC) of the midspar fittings of the nacelle strut for cracks, and repair if necessary; and performing repetitive general visual inspections of the nacelle struts to verify that the nacelle strut has not drooped below its normal position, applying the droop stripe to the nacelle strut and sailboat fairing if necessary, and repair if necessary. We are proposing this AD to detect and correct cracking of the midspar fitting, which could result in separation of the nacelle strut and engine from the airplane while in flight, and consequent loss of controllability of the airplane.

DATES: We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

• Federal eRulemaking Portal: Go to http://www.regulations.gov. Follow the instructions for submitting comments.

• Fax: 202-493-2251.

• Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

• Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 165501 Lind

Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6577; fax: (425) 917-6590; email: Berhane.Alazar@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include "Docket No. FAA-2012-0490; Directorate Identifier 2012-NM-066-AD" at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to http://www.regulations.gov, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

We have received reports of fatigue cracking of the midspar fittings, and the engine and nacelle strut separating from the airplane. Operators have reported that the cracking occurred on more than 40 airplanes with approximately 9,900 to 63,000 flight hours. In addition, there has been a report of the engine number 3 nacelle strut separating from the airplane and contacting the engine number 4 nacelle strut, which also separated from the airplane. This condition, if not corrected, could result in a fractured midspar fitting, which could cause a separation of the nacelle strut and engine from the airplane while in flight, resulting in loss of controllability of the airplane.

Relevant Service Information

We reviewed Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012. That service information describes procedures for:

- Performing a detailed inspection of the midspar fittings of the engine number 2 and 3 nacelle struts to confirm that the correct part number is installed, and installing the correct part number if necessary.

- Performing HFEC inspections of the midspar fittings of the engine number 2 and 3 nacelle struts for cracks, and repairing if necessary.

- Performing repetitive general visual inspections of the nacelle struts of engine numbers 1, 2, 3, and 4 to verify that the nacelle strut has not drooped below its normal position, applying the droop stripe to the nacelle strut and sailboat fairing if necessary, and repairing if necessary.

The initial compliance times for the HFEC and general visual inspections, and the application of the droop stripe if necessary, is at the later of: (1) within 1,500 flight cycles or 48 months from the replacement of the nacelle strut inboard and outboard midspar fittings, whichever occurs first, or (2) within 120 days.

For the HFEC inspection, the repetitive interval is within 250 flight cycles or 12 months, whichever occurs first.

For the general visual inspection, the repetitive interval is 30 flight cycles, except after both midspar fittings are replaced on the strut, the next inspection would be performed within 1,500 flight cycles or 48 months, whichever occurs first, from the replacement of both the nacelle strut inboard and outboard midspar fittings.

Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, refers to Boeing 707/720 Service Bulletin 3183, Revision 5, dated September 16, 1993, as an additional source of guidance for the HFEC inspections of the midspar fittings of the engine number 2 and 3 nacelle struts for cracks.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in the service information described previously, except as discussed under "Differences Between the Proposed AD and the Service Information."

Differences Between the Proposed AD and the Service Information

Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, specifies to contact the manufacturer for instructions on how to repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

• In accordance with a method that we approve; or

• Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, refers to "Manual 707, 720 NDT Part 6, 51-00-00 Figure 24 as an accepted procedure" for the HFEC inspection. This proposed AD would require that the inspection must be done in accordance with Subject 51-00-00 Figure 24, Steel Part Surface Inspection (Impedance Plane Display), of Part 6, Eddy Current, of the Boeing 707, 720 Nondestructive Test Manual, Document D6-48023, Revision 120, dated March 15, 2012.

Costs of Compliance

We estimate that this proposed AD affects 11 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Detailed inspection, repetitive HFEC inspections and repetitive general visual inspections of the midspar fittings of the nacelle strut	23 work-hours X $85 per hour = $1,955	$0	$1,955	$21,505

We estimate the following costs to do any necessary repairs that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need these repairs:

On-condition costs

Action	Labor cost	Parts cost	Cost per product
Install the correct part number	130 work-hours X $85 per hour = $11,050	$7,867 x 4 = $31,468	$42,518

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

(1) Is not a "significant regulatory action" under Executive Order 12866,

(2) Is not a "significant rule" under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

The Boeing Company: Docket No. FAA-2012-0490; Directorate Identifier 2012-NM-066-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

This AD applies to all The Boeing Company Model 707-100 long body, -200, -100B long body, and -100B short body series airplanes; Model 707-300, -300B, -300C, and -400 series airplanes; and Model 720 and 720B series airplanes; certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC)/Air Transport Association (ATA) of America Code 54, Nacelles/Pylons.

(e) Unsafe Condition

This AD was prompted by reports of cracking of the midspar fittings and of the engine and nacelle strut separating from the airplane. We are issuing this AD to detect and correct cracking of the midspar fitting, which could result in separation of the nacelle strut and engine from the airplane while in flight, and consequent loss of controllability of the airplane.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Detailed Inspection

Within 120 days after the effective date of this AD: Do a detailed inspection of the midspar fittings of the engine number 2 and 3 nacelle struts to confirm that the correct part number is installed, in accordance with the Accomplishment Instructions of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012. If any incorrect part number is found: Before further flight, install the correct part number, in accordance with the Accomplishment Instructions of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012.

Note 1 to paragraph (g) of this AD: Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, refers to Boeing 707/720 Service Bulletin 3183, Revision 5, dated September 16, 1993, as an additional source of guidance for high frequency eddy current inspections of the midspar fittings of the engine number 2 and 3 nacelle struts for cracks.

(h) High Frequency Eddy Current Inspection (HFEC)

At the applicable times specified in paragraph 1.E., “Compliance,” of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, except as provided in paragraph (j) of this AD: Do an HFEC inspection of the midspar fittings of the engine number 2 and 3 nacelle struts for cracks, in accordance with the Accomplishment Instructions of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, except as provided by paragraph (k) of this AD. If any crack is found, before further flight, repair using a method approved in accordance with the procedures specified in paragraph (m) of this AD. Thereafter, repeat the inspection at the applicable intervals specified in paragraph 1.E., “Compliance,” of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012.

(i) General Visual Inspection of the Nacelle Struts of Engine Numbers 1, 2, 3, and 4

At the applicable times in paragraph 1.E., "Compliance," of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, except as provided in paragraph (j) of this AD: Do a general visual inspection of the nacelle struts of engine numbers 1, 2, 3, and 4 to verify that the nacelle strut has not drooped below its normal position, in accordance with the Accomplishment Instructions of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012. Thereafter, repeat the inspection at the applicable intervals specified in paragraph 1.E., "Compliance," of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012.

(1) If any nacelle strut has drooped below its normal position: Before further flight, repair using a method approved in accordance with the procedures specified in paragraph (m) of this AD.

(2) If any nacelle strut has not drooped below its normal position, and no droop stripe has been applied, as specified in Boeing 707/720 Service Bulletin 3377, dated November 21, 1979: At the applicable times in paragraph 1.E., "Compliance," of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, except as provided in paragraph (j) of this AD: Apply the droop stripe to the nacelle strut and sailboat fairing, on each side of the engine numbers 1, 2, 3, and 4 nacelle struts, in accordance with the Accomplishment Instructions of Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012.

(j) Exception to the Compliance Time

Where Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, specifies a compliance time based on "the original issue date of this service bulletin," this AD requires compliance within the specified compliance time after the effective date of this AD.

(k) Exception to the Service Information

Where Boeing 707 Alert Service Bulletin A3537, dated January 30, 2012, refers to "Manual 707, 720 NDT Part 6, 51-00-00 Figure 24 as an accepted procedure" for the HFEC inspection, this AD requires that the inspection must be done in accordance with Subject 51-00-00 Figure 24, Steel Part Surface Inspection (Impedance Plane Display), of Part 6, Eddy Current, of the Boeing 707, 720 Nondestructive Test Manual, Document D6-48023, Revision 120, dated March 15, 2012.

(l) Credit for Previous Actions

This paragraph provides credit for the installation of the engine droop lines required by paragraph (i) of this AD, if those actions were performed before the effective date of this AD using Boeing 707/720 Service Bulletin 3377, dated November 21, 1979.

(m) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Seattle Aircraft Certification Office (ACO), ANM-120S, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in the Related Information section of this AD. Information may be e-mailed to: 9-ANM-Seattle-ACO-AMOC-Requests@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, ANM-120S to make those findings. For a repair method to be approved, the

repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

(n) Related Information

(1) For more information about this AD, contact Berhane Alazar, Aerospace Engineer, Airframe Branch, ANM-120S, FAA, Seattle Aircraft Certification Office, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: (425) 917-6577; fax: (425) 917-6590; email: Berhane.Alazar@faa.gov.

(2) For service information identified in this AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, Washington 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; e-mail me.boecom@boeing.com; Internet https://www.myboeingfleet.com. You may review copies of the referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, Washington. For information on the availability of this material at the FAA, call 425-227-1221.

Issued in Renton, Washington, on May 21, 2012.

Michael Kaszycki,
Acting Manager,
Transport Airplane Directorate,
Aircraft Certification Service.

[FR Doc. 2012-13039 Filed 05/29/2012 at 8:45 am; Publication Date: 05/30/2012]